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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER

HAMILTON, KIMBERLY Y

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 08/24/2004 9

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/856,916

Applicant(s)

GEIGER ET AL.

Examiner

Kimberly Hamilton

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 4 June 2004 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-5.                      6) ☐ Other: \_\_\_\_\_

DETAILED ACTION

*Response to Amendment*

1. The amendments of Application No. 09/856916 filed on June 4, 2004 have been taken into consideration. The Examiner acknowledges amended claims 2 and 6-8 with the omission of claim language "for example" and "preferably". In addition, the Examiner acknowledges the drawing corrections of Fig. 1, which shows labels for control device 5, signal processing device 6, and operating unit 13. In turn, Fig. 1 complies to rule 37 C.F.R. § 1.83(a).

*Response to Arguments*

2. The arguments of Application No. 09/856916 filed on June 4, 2004 have been taken into consideration. On pg. 5, line 10-15, the Applicant explains that the objection of Figs. 2 and 4-7 is in error, because within the instant application (pg. 12, lines 20-21), the Applicant discloses the "opening 28", wherein the Examiner objected the figures under 35 C.F.R. § 1.84(p)(5); however, the objection is withdrawn.

3. Applicant's arguments, see pg. 6, lines 1-14, filed June 4, 2004, with respect to the rejection of claim 1 under 35 U.S.C. 102(e) as being anticipated by Watanuki et al (US 6389856) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of 35 U.S.C. 103(a) as being unpatentable over Watanuki in view of Sivonen et al. (EP 0818596) because Sivonen discloses the limitation of a blocking element that prevents movement of the key holder unless the key is inserted.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 and 9 are rejected under 35 U.S.C. 103 (a) as being unpatentable under Watanuki et al (US 6389856) in view of Sivonen et al. (EP 0818596).

Regarding claims 1, 2 and 4, Watanuki teaches an electronic locking apparatus for vehicles (fig. 1, LA) that is made for an associated electronic key (fig. 1, 20). The electronic key (20) emits a signal via its embedded chip circuit (fig.1, 23) to the electronic lock (LA), which receives the transmitted signal. The control unit (fig. 8, 60) performs an identification verification analysis to determine if the signals between the electronic key (20) and the electronic lock (LA) coincide with one another (col. 2, lines 14-25). In addition, Watanuki teaches that blocking element (read as first slider, fig.1, 12) is actuated by the insertion portion (fig. 1, 21) of the electronic key (20) (col. 2, lines 41-44). Also, other blocking elements, such as the plurality of tumblers (fig.1, 6) and the stopper (fig. 1, 9), are in the electronic lock (LA) (col. 5, lines 12-22). Moreover, Watanuki teaches that the electronic lock apparatus (LA) has a first check lever (fig. 1, 14) that communicates with the first slider (12) and the switching element (read as key presence/absence detecting switch fig.1, 11) (col. 5, lines 55-58). However, Watanuki does not disclose the blocking element as a means for preventing movement of the key holder (receptacle).

However, Sivonen, who teaches an electronic locking system, expressively discloses an electronic lock that has a blocking means 4 that is controlled by an electronic unit 5 (col. 2, lines 50-54). In addition, Sivonen teaches that the blocking mean 4 prevents movement of the cylinder lock 1 unless a code is received from the associated key (col. 2, lines 54-59). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the blocking means of Sivonen into the electronic lock of Watanuki, because Watanuki teaches a blocking means that is actuated by the electronic key, and Sivonen teaches the blocking elements as a means to prevent movement of the key holder unless the associated key is inserted, which provides more security against auto-theft.

Regarding claim 3, Watanuki teaches that the tumbler (6) engages the tumbler groove (fig. 6, 7) by a spring force (fig. 6, 6a) when the electronic key (20) is inserted into the electronic lock (LA) (col. 8, lines 63-67).

Regarding claim 5, Watanuki discloses that the lever (14) within the electronic lock (LA) transmits a sliding-like motion of the first slider (12) in order for the key- detecting switch (11) is turned on (col. 6, lines 1-7).

Regarding claim 9, Watanuki teaches that the first slider (12) engages the concave portion (fig.1, 22) of the electronic key (20) to prevent the key (20) from sliding out of the electronic lock cylinder (fig.1, 1A).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanuki in view Sivonen (hereinafter Watanuki) in further view of Mullin et al (GB 2169651A).

Regarding claim 6, Watanuki does teach that the blocking element is spring-loaded, which acts on the lever (14) inside a groove (7) that is inside of the electronic lock (LA). However, Watanuki fails to teach the slider (12) has a cam on top of the first slide (12).

On the other hand, Mullin, who teaches a locking device with an encoded key, discloses that the cam member (fig. 1, 6) slides within a groove. The cam member (6) is to operate the ignition switch of a vehicle (col. 1, lines 63-65). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention was made to supply the locking apparatus (LA) that Watanuki teaches with a cam member (6) that Mullin suggests for the locking device within a vehicle.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanuki in view Sivonen Mullin (hereinafter Watanuki) in further view of Neuhalfen (US 5974661).

Regarding claim 7, Watanuki teaches that the switch element (11) is of the push-button type, for the lever (14) actuates the switch (11) to be ON (col. 6, lines 1-7). However, Watanuki fails to teach that the switch (11) is of surface mounted device (SMD) technology on a printed-circuit board (PC boards).

Neuhalfen, who teaches electronic components within a surface mounted device, discloses that SMD is designed to protect electronic components from electrostatic discharge (ESD) (Abstract, lines 4-6). In addition, Neuhalfen also teaches that PC boards are found in electronic devices of all kinds (col. 1, 25-29). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention was made to include SMD technology in the ignition lock of Watanuki as evident by Neuhalfen, because Watanuki suggests that the electronic locking device is mounted within a vehicle (col. 2, lines 7-13). Henceforth, in order to prevent any damage to the electronic device, such as an electronic lock, SMD is needed as Neuhalfen suggests (col. 1, lines 25-29).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanuki in view Sivonen (hereinafter Watanuki) in further view of Nagae et al (US 6003349).

Regarding claim 8, Watanuki teaches that the electronic lock (LA) has a rotating member, which is actuated by the insertion portion (22) of the electronic key (20) (col. 2, lines 29-33). However, Watanuki fails to teach that the blocking elements are mounted on or in the rotor.

Nagae, who teaches a vehicle lock device, discloses that the slide members are moved in a direction by means of the cam member, which in turn, affects the rotation member (col. 2, lines 38-44). Additionally, Nagae teaches that there are tumblers (blocking elements) within the rotor. The tumblers are only moved when the correct key is inserted into the key rotor (col. 1, line 60 – col. 2, line 4). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention was made to have the rotor interacts with the cam member and the blocking elements within the ignition lock of Watanuki as evident by Nagae, for Watanuki teaches that electronic locking apparatus (LA) has a rotating member (col. 2, lines 29-33). In order to prevent the wrong key from being entered into the key rotor, tumblers are located within the key rotor to block the key as Nagae teaches (col. 2, lines, 1-4).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Hamilton whose telephone number is 703.305.8975. The examiner can normally be reached from Monday – Friday between the hours of 7am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703.305.4704. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.3900.

Kimberly Hamilton  
Examiner  
Art Unit 2635  
20 August 2004

KYH

MICHAEL HORABIK  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

